STATE OF MARYLAND

DHMH

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August 17, 2011

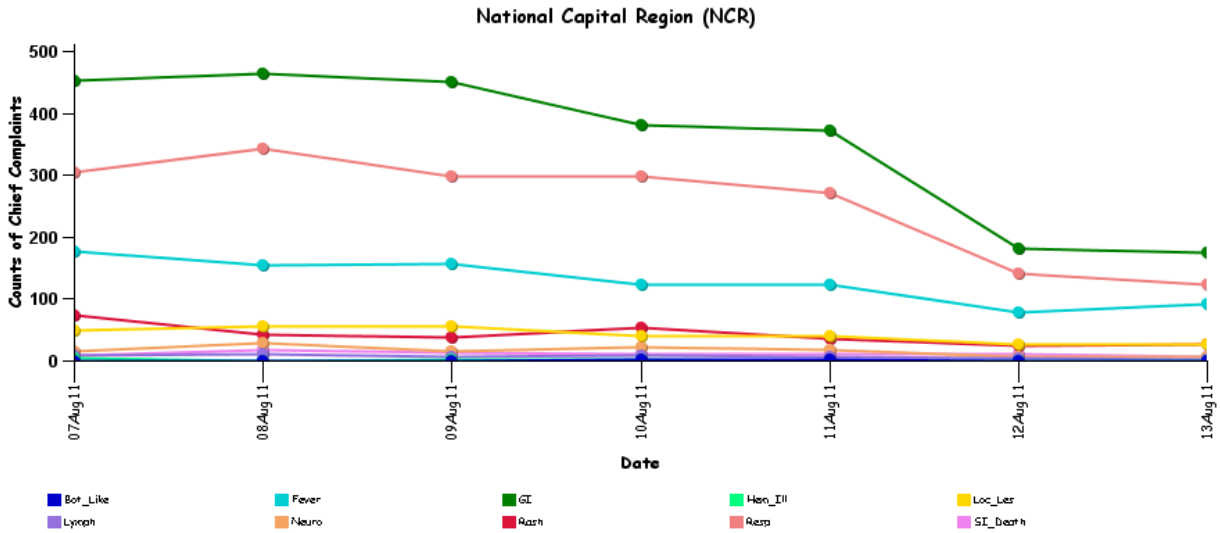
Public Health & Emergency Preparedness Bulletin: # 2011:32
Reporting for the week ending 08/13/11 (MMWR Week #32)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: **No Active Alerts**
Maryland: **Level One (MEMA status)**

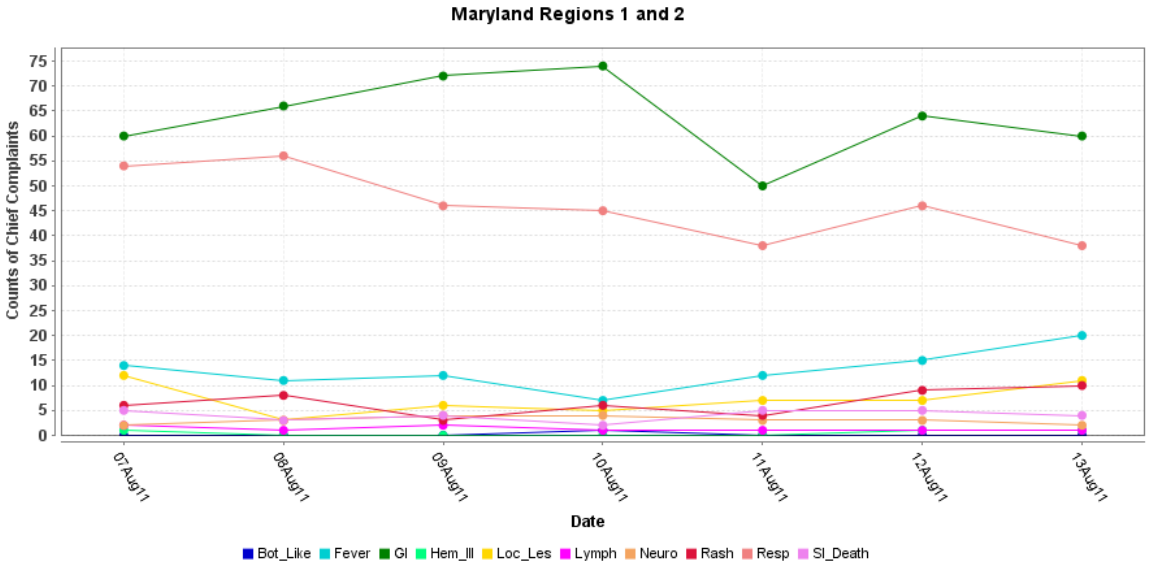
SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

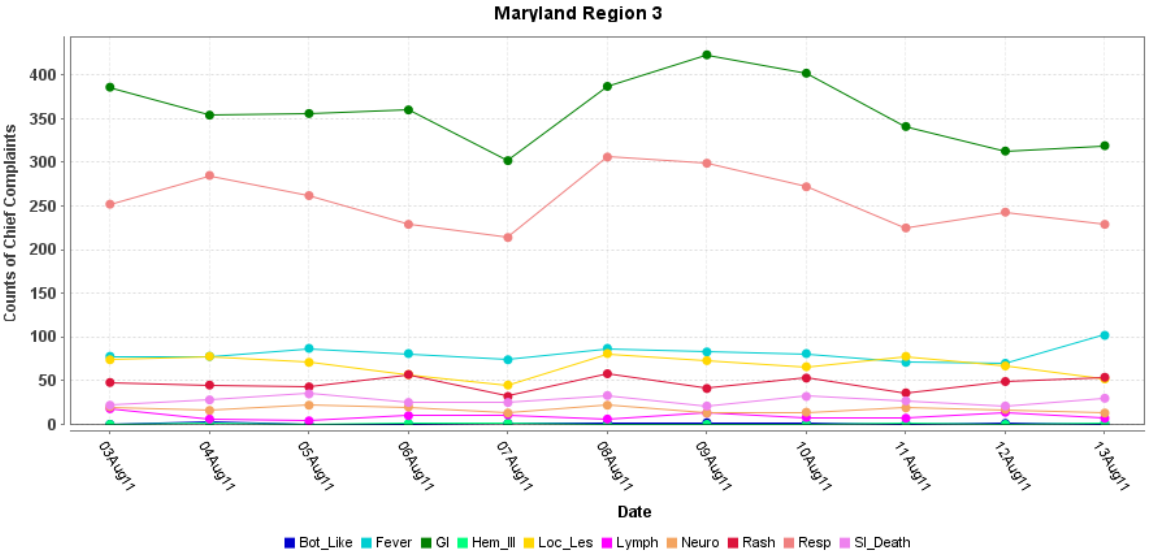


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

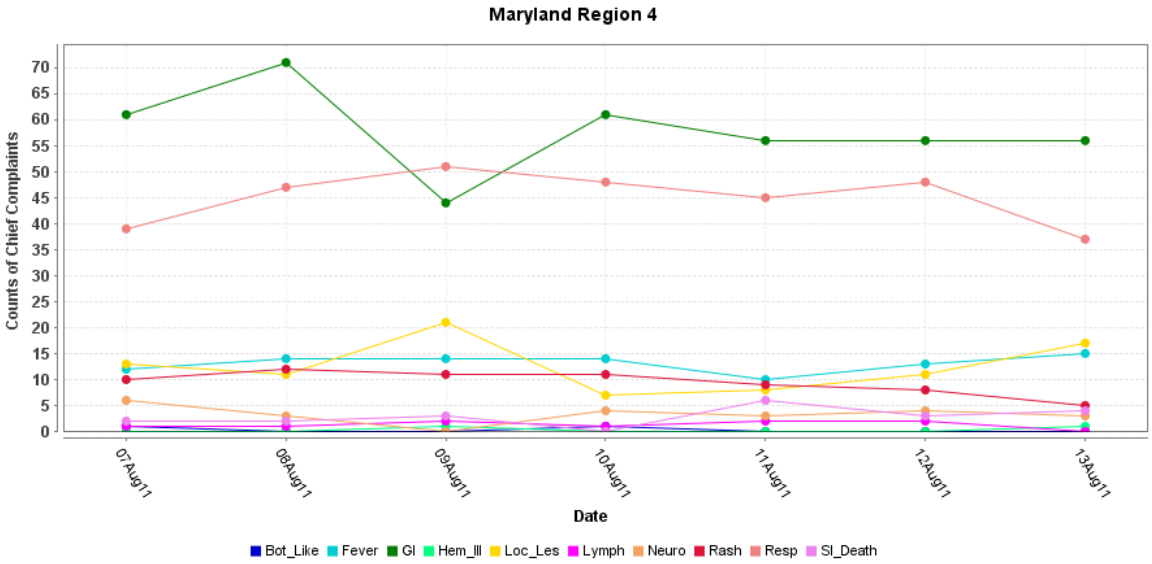
MARYLAND ESSENCE:



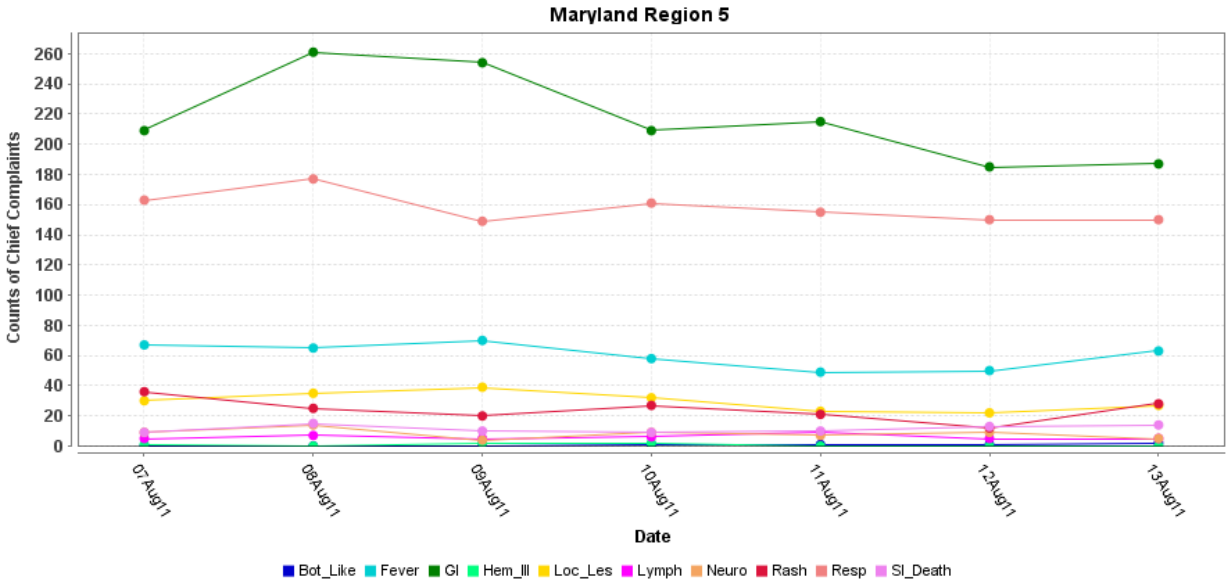
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



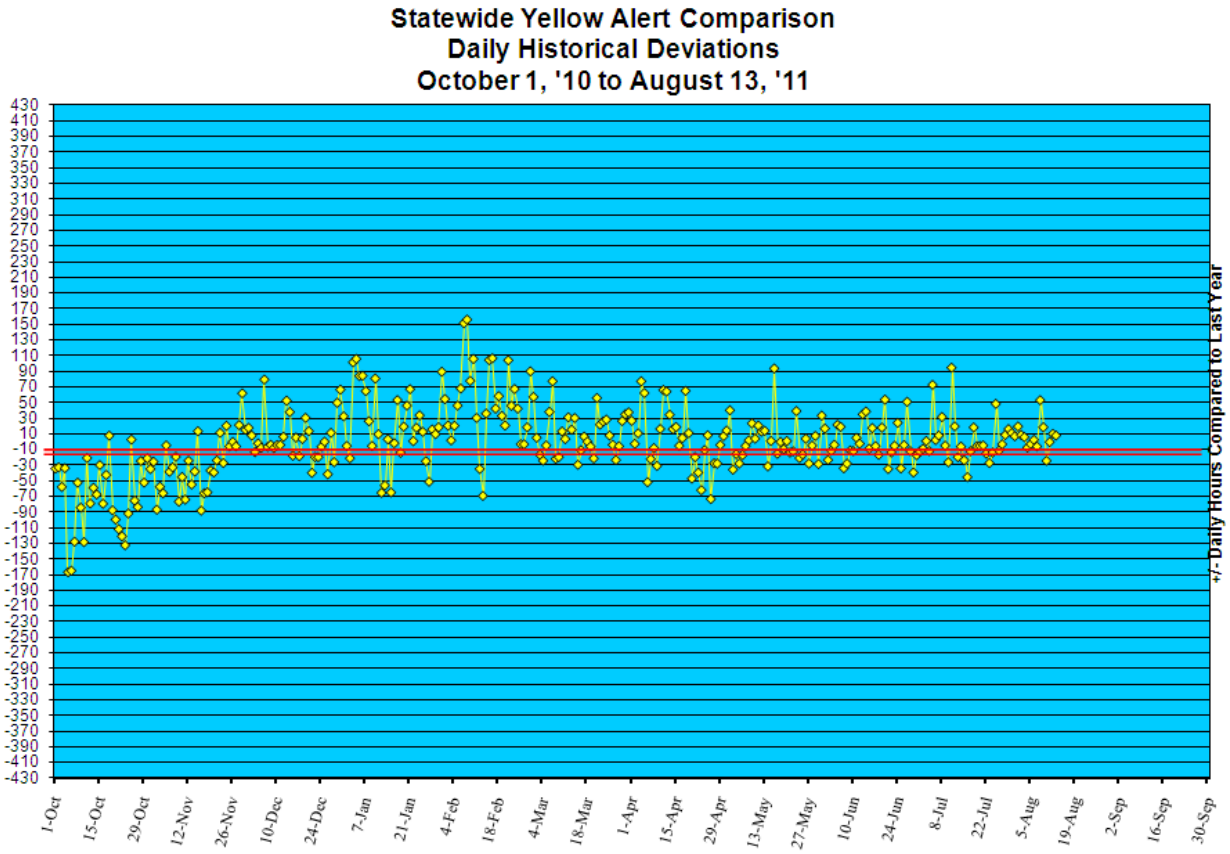
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/10.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in July 2011 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (August 7 – August 13, 2011):	11	0
Prior week (July 31 – August 6, 2011):	23	0
Week#32, 2010 (August 8 – August 14, 2010):	18	0

2 outbreaks were reported to DHMH during MMWR week 32 (August 7 – August 13, 2011).

1 Gastroenteritis outbreak
1 outbreak of E. COLI O157 associated with a Park (Out of State)

1 Respiratory Illness outbreak
1 outbreak of AFRD/PNEUMONIA in a Nursing Home

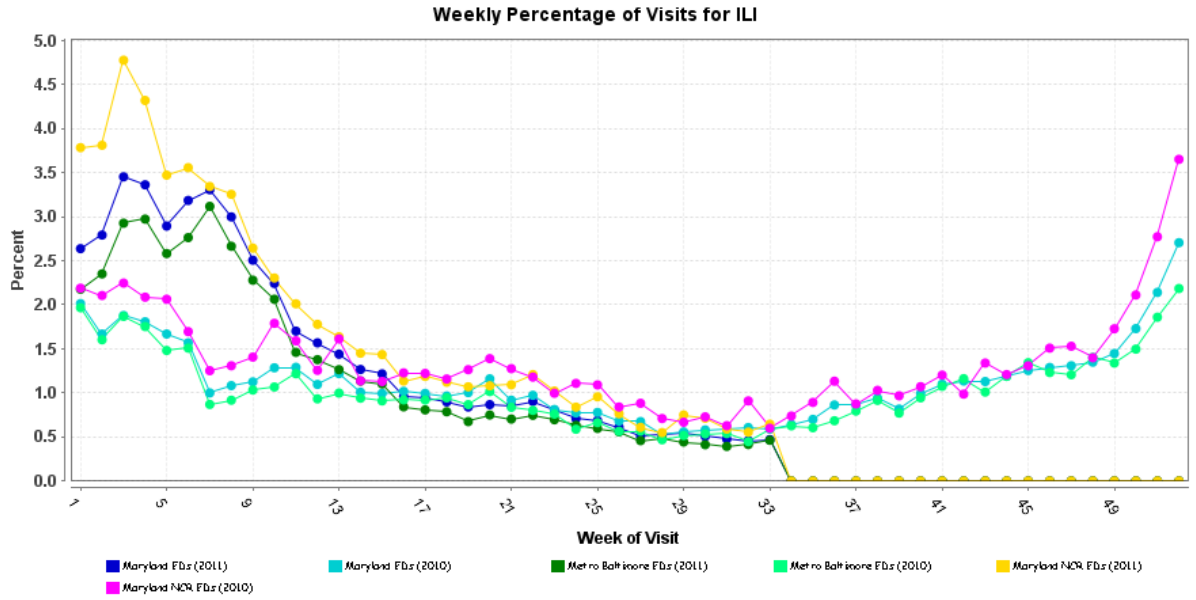
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May.

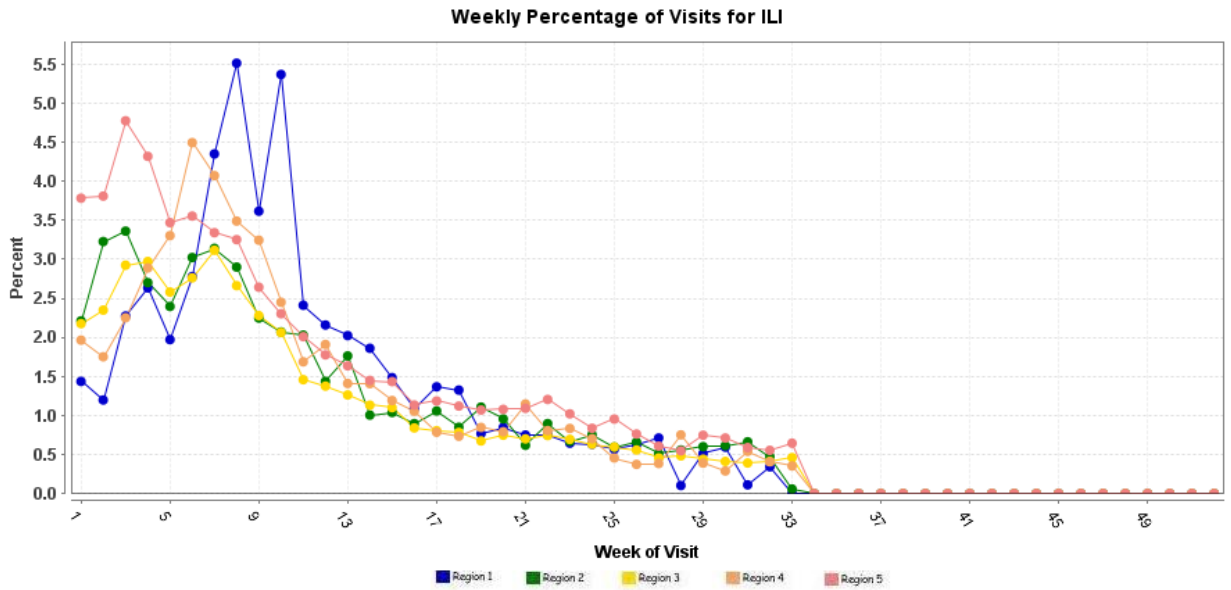
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



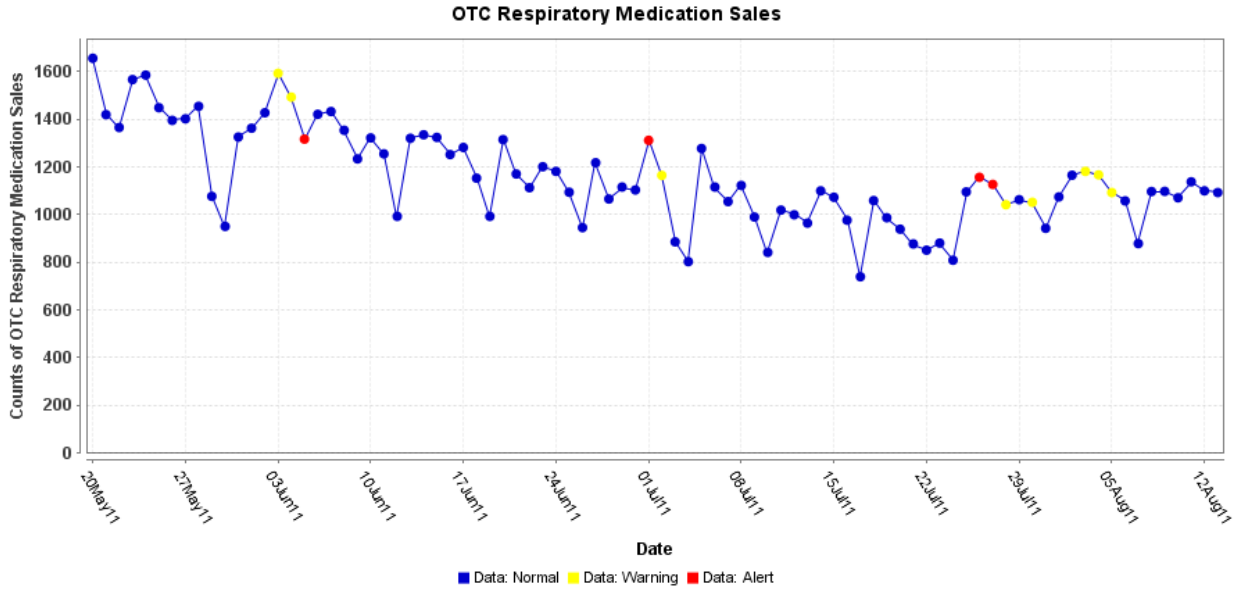
* Includes 2010 and 2011 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2011 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

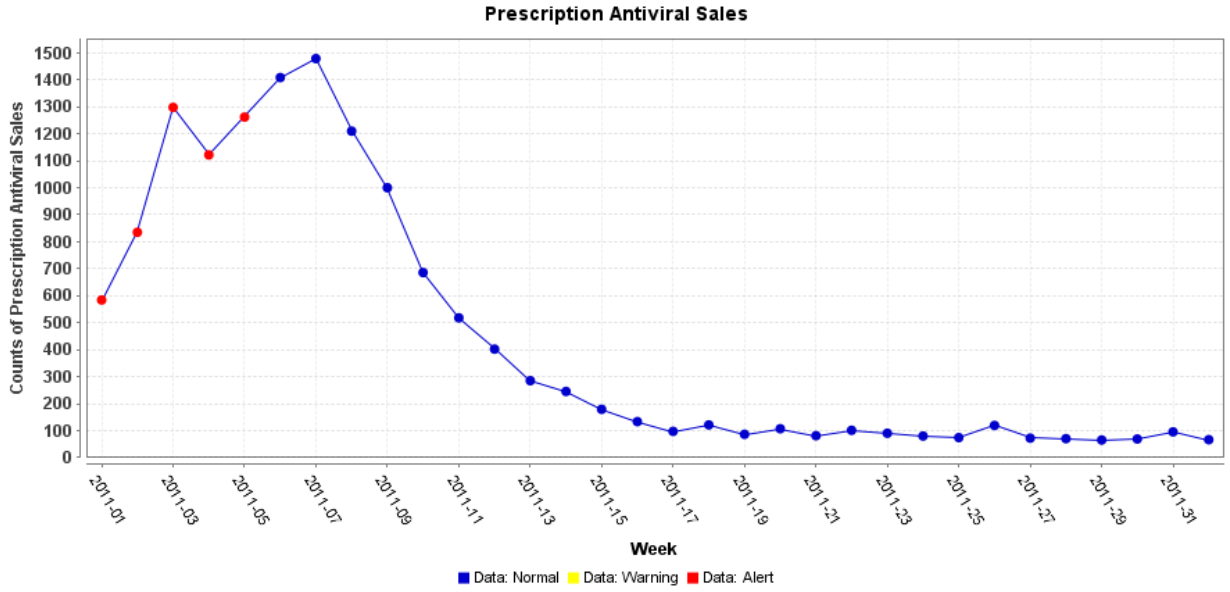
OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PRESCRIPTION ANTIVIRAL SALES:

Graph shows the weekly number of prescription antiviral sales in Maryland.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of August 9, 2011, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 564, of which 330 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

AVIAN INFLUENZA, HUMAN (EGYPT): 10 August 2011, The Ministry of Health of Egypt has notified WHO of one case of human infection with avian influenza A (H5N1) virus. The case is a 6 year old girl from Demnhoor district [Damanhur], Beheira governorate. She developed symptoms on 12 Jul 2011, and was hospitalized. She completed the course of oseltamivir, recovered, and was discharged on 30 Jul 2011. Investigations into the source of infection indicate that the case had exposure to poultry suspected to have avian influenza. The case was confirmed by the Egyptian Central Public Health Laboratories, a National Influenza Center of the WHO Global Influenza Surveillance Network. Of the 151 cases confirmed to date in Egypt, 52 have been fatal.

NATIONAL DISEASE REPORTS

SALMONELLOSIS, SEROTYPE HEIDELBERG (USA): 12 August 2011, CDC is collaborating with public health officials in many states and the US Department of Agriculture's Food Safety and Inspection Service (USDA-FSIS) to investigate a multistate outbreak of Salmonella [enterica serotype] Heidelberg infections that is likely caused by eating ground turkey. Public health investigators are using DNA "fingerprints" of the bacteria to identify ill people who may be part of this outbreak. The bacteria are obtained from diagnostic testing; pulsed-filed gel electrophoresis (PFGE) is used to determine DNA fingerprint patterns. Investigators are using data from PulseNet, the national subtyping network made up of state and local public health laboratories and federal food regulatory laboratories that performs molecular surveillance of foodborne infections. The outbreak strain of S. Heidelberg is resistant to several commonly prescribed antibiotics; this antibiotic resistance may be associated with an increase in the risk of hospitalization or possible treatment failure in infected individuals. A total of 107 people infected with the outbreak strain

have been reported from 31 states between 27 Feb 2011 and 9 Aug 2011. The number of patients identified in each state is as follows: Alabama (1), Arkansas (1), Arizona (3), California (6), Colorado (2), Georgia (2), Illinois (13), Indiana (1), Iowa (2), Kansas (1), Kentucky (2), Louisiana (1), Massachusetts (3), Maryland (1), Michigan (12), Minnesota (2), Mississippi (1), Missouri (4), Nebraska (2), Nevada (1), New York (2), North Carolina (3), Ohio (10), Oklahoma (1), Oregon (1), Pennsylvania (5), South Dakota (3), Tennessee (2), Texas (14), Utah (1), and Wisconsin (4). Among those for whom information is available, illnesses began on or after 27 Feb 2011. Patients range in age from less than 1 year to 89 years old, with a median age of 21 years old. 55 per cent are male. Among the 64 ill people for whom information is available, 25 (39 per cent) have been hospitalized. One death has been reported. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

ANTHRAX (MINNESOTA): 11 August 2011, An investigation into the origins of Minnesota's 1st human anthrax case in many years is focusing on where the patient might have been exposed to the deadly pathogen, Minnesota state epidemiologist Dr Ruth Lynfield said today [10 Aug 2011]. The Minnesota Department of Health (MDH) announced yesterday that a person who had recently traveled through North Dakota, South Dakota, Montana, and Wyoming was being treated for inhalational anthrax in a Minnesota hospital. Officials said the case was apparently caused by naturally occurring anthrax in the environment. The MDH has not revealed the patient's condition or listed any identifying details such as name, gender, home state, or hospital. Lynfield said today that the patient had been on a "multi-week trip" and was sick on arrival in Minnesota after traveling through the 4 western states. "Anthrax is in the environment in the soil in all these places, so it's hard to know for sure" where the exposure might have occurred, she said. "We're trying to go through the [travel] itinerary. We'll be learning more, but at this point what we know is that the person was in a place where anthrax does cause disease in animals," she said. She noted that the disease strikes cattle and wildlife such as bison and deer. She also said officials are looking into whether the patient has any risk factors that could have made him or her more susceptible to inhalational anthrax. Lynfield noted that floods can move Bacillus anthracis, the bacterium that causes anthrax, in the soil, leading to animal outbreaks. "One thing we're doing now is checking in with various wildlife groups and veterinarians to try to determine if there's anything going on this summer [2011]," she said. She said Minnesota has not had a confirmed human anthrax case in "decades," and neighboring states have not had any recent cases, either. Because of the potential for bioterrorist use of anthrax, the Federal Bureau of Investigation (FBI) initially collaborated with the MDH to investigate the case, the MDH said yesterday. The FBI ended its involvement after concluding there was no evidence of terrorist or criminal activity, officials said. Lynfield declined to describe the patient's condition today. "There was a rumor that the patient had died -- that's just a rumor," she said. She noted that the patient's family has had bad experiences with the news media in the past and has asked the MDH to protect its privacy. Inhalational anthrax is the most deadly form of the disease. Anthrax spores that were sent by mail to several media offices and 2 US senators' offices in 2001 sickened 22 people, killing 5 of them. (Anthrax is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

E. COLI O157 (PENNSYLVANIA): 10 August 2011, A rash of Escherichia coli [O157:H7] infections has prompted state officials to close a central Pennsylvania lake to recreational activities. The Department of Conservation and Natural Resources says at least 6 positive cases and 3 probable infections have been reported by people who swam in the lake at Cowans Gap State Park in Fulton County. Spokesman Terry Brady says the infection cases involve patients ranging from 2 to 49 years old. One affected child is from Maryland and the rest from central Pennsylvania. Brady says all 9 cases involve people who went swimming in the lake in late July 2011. The lake was closed to swimmers one day last month, July 2011, following a high E. coli reading, but was reopened after the level dropped within acceptable limits. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

E. COLI O157 (USA): 09 August 2011, Oregon strawberries, an iconic crop that heralds summer and has long been a source of state pride, caused the nation's 1st Escherichia coli [O157:H7] outbreak ever traced to the fruit, killing one woman and sickening 16. Health officials linked the outbreak on Monday [8 Aug 2011] to one supplier: Jaquith Strawberry Farm in rural Washington County. The medium-sized strawberry producer, with about 35 acres [14 ha], sold potentially tainted fresh strawberries to buyers who in turn distributed them to roadside stands and farmers markets in Multnomah, Washington, Clackamas, Yamhill, and Clatsop counties. The last of the berries was sold 1 Aug 2011, but health officials are worried that consumers might have stored some of them in the freezer or turned them into uncooked jam. Anyone who bought strawberries from a stand north of Marion County and as far east as Clackamas County should throw them out. They were sold in unmarked containers without labels. The outbreak has sent 4 people to the hospital, including 2 people who suffered kidney failure, said Dr Paul Cieslak, manager of the communicable disease program at Oregon Public Health. One of them, an elderly woman in Washington County, died of kidney failure. The 1st person became ill 10 Jul 2011 and the last one reported getting sick 29 Jul 2011. That day the farm stopped production of potentially tainted berries and they were off the market by 1 Aug 2011. E. coli O157:H7 has an incubation period from 1 to 10 days, so the state might get more reports of illnesses. "We're likely to see a few more cases trickle in for a bit, but the stuff is gone from the shelves," Cieslak said. Anyone who's eaten berries from a stand more than 10 days ago has no reason to fret. "If you haven't become sick by 10 days, you're not going to," he said. Strawberries had never before been implicated in an E. coli O157:H7 outbreak in the US, and state officials weren't sure at first what was making people sick. The 1st case appeared to be an isolated illness. Oregon Public Health officials put it in their files and moved on. Then lab results of 2 more cases, a married couple in Clatsop County, came in. Matt Laidler, a state epidemiologist, began investigating. The couple thought a restaurant meal had poisoned them 15 Jul 2011. They developed diarrhea a few days later. Another couple at the same dinner also got ill. Laidler called the restaurant and interviewed other diners. While he was trying to unravel the source of their illness, Multnomah and Washington counties reported other cases to the state. It quickly became clear that Oregon had an outbreak on its hands. Epidemiologists kicked into high gear, grilling patients on what they had eaten and where to find a common link. Many said they bought strawberries from a roadside stand. Next, epidemiologists drove to homes to collect berries from freezers for testing. They quizzed roadside stands where patients had shopped. Those questions turned up Jaquith Strawberry Farm as the likely source of the contamination. No one knows for sure how the berries got contaminated. So far, none of the fields or berries have tested positive, though lab work is continuing. William Keene, senior epidemiologist with Oregon Public Health, suspects the source might be deer he saw roaming through the fields. He hauled samples of animal feces to a specialized lab outside Seattle for testing. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

VIBRIO PARAHAEMOLYTICUS (WASHINGTON): 07 August 2011, At least 22 people have become ill after eating raw oysters in Washington State according to a Thu 4 Aug 2011 Washington State Department of Health (WSDH) news release. The illnesses, caused by the bacterium Vibrio parahaemolyticus, have been connected to both raw oysters from commercial harvesting and recreational harvesting. The WSDH offers the following steps to avoid vibriosis:

- Put oysters on ice or refrigerate them as soon as possible after harvest.
- If a receding tide has exposed oysters for a long time, don't harvest them.
- Always cook oysters thoroughly. Cooking oysters at 145 F for 15 seconds destroys vibrio bacteria.
- Rinsing fully-cooked oysters with seawater can re-contaminate them.
- For commercial harvesters, special control measures are in place from May through September to keep people from getting sick if they eat raw oysters.
- Shellfish companies must quickly refrigerate oysters after they're harvested. They're required to keep detailed harvest and temperature control records to show that the oysters were handled properly.

INTERNATIONAL DISEASE REPORTS

JAPANESE ENCEPHALITIS AND OTHER (INDIA): 13 August 2011, A total of 4 more deaths due to encephalitis have been reported in the Purvanchal region of Uttar Pradesh, taking this year's toll to 143, health officials said today [11 Aug 2011]. At present, 168 patients are undergoing treatment at the Nehru Hospital of BRD Medical College and other hospitals here, they said, adding 22 patients showing symptoms of the disease were admitted today. Out of this, 19 have been admitted at the Nehru Hospital, they added. (Viral Encephalitis is listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

ANTHRAX (CHINA): 12 August 2011, A total of 9 more people are suspected of being infected with cutaneous anthrax in north east China's Liaoning Province, bringing the total number of reported cases to 30, local health authorities said on Friday [12 Aug 2011]. Among the reported cases, 3 have been confirmed and 27 others are still being investigated, the Liaoning Provincial Health Department said in a statement. 29 of the patients are receiving treatment at an infectious disease hospital in the city of Anshan, while the other one has been transferred to a hospital in the provincial capital of Shenyang. An initial investigation by local health authorities indicated that the patients contracted the disease after coming into direct contact with diseased cattle. Cutaneous anthrax is an infection of the skin caused by direct contact with infected animals or animal products. It is rarely fatal if treated. (Anthrax is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

ANTHRAX (VIET NAM): 12 August 2011, Some mountainous northern provinces including Lai Chau, Dien Bien, and Ha Giang have reported cases of the anthrax disease in recent months. The Department of Preventive Medicines in Lai Chau has reported 25 anthrax cases in the districts of Than Uyen and Tam Duong. One 3 year old toddler contracted the infection while one resident succumbed to the disease. People believe that the cause of the disease is exposure to infected goats, cattle, sheep, and horses or by consuming products related to them. Medical workers fret that it is difficult to eradicate the disease because residents' have a nasty habit of exposing themselves directly to infected ruminants during slaughter. According to deputy health minister Trinh Quan Huan, anthrax can infect humans in 3 ways. The commonest is through the skin, which causes ugly sores that usually go away without treatment. Dead carcasses of animals left to putrefy in open contaminated areas can be a source of anthrax infestation. Carcasses need to be buried to avoid the spread of the virus to live animals and subsequently to humans. (Anthrax is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

MURRAY VALLEY ENCEPHALITIS (AUSTRALIA): 10 August 2011, ore cases of mosquito-borne viruses have been detected in the [Western Australia/WA] state's Kimberley and Pilbara regions more than 2 months after 3 people were killed by the virus in 3 Australian states. Murray Valley encephalitis [MVE] was continuing to be detected across the state which medical entomologist Sue Harrington said was unusual given it was so far into the dry season. She said it indicated an "ongoing and persistent activity of the virus". One person has died in WA and a further 9 people have been found to have contracted the mosquito-borne virus this year [2011]. Another person was currently being monitored and was believed to be the 11th person with MVE [virus infection]. "Murray Valley encephalitis is carried by mosquitoes, and while the risk of being infected and becoming unwell is low, the illnesses can be severe and people should take sensible precautions to avoid mosquito bites," she said. She said monitoring results, undertaken in conjunction with the University of WA, found that although mosquito numbers were quite low, the rare but potentially fatal virus was still being detected. A man died in the northwest region of WA in early May [2011] after contracting the virus. Later that month, it also claimed the life of a Canadian tourist who visited the Northern Territory and a South Australian man. By late May 2011, the Department of Health had issued warnings that the virus may spread much closer to Perth than it had previously, with mosquitoes thriving in the perfect WA conditions. A late onset of winter has allowed the infected mosquitoes to breed for longer and in higher numbers, and they are thriving further south. MVE has no cure and no vaccine with the only way to avoid infection being the avoiding of mosquito bites. The Department of Health issued a warning (<http://www.health.wa.gov.au/press/view_press.cfm?id=1030>) to people living and travelling through the Kimberley and Pilbara regions to take care against mosquitoes, especially at sunrise and sunset when they were most active. (Viral Encephalitis is listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

DIARRHEAL SHELLFISH POISONING (CANADA): 07 August 2011, The Canadian Food Inspection Agency (CFIA) is warning the public not to consume the mussels, described below, because they may contain diarrheal shellfish poisoning (DSP) biotoxin. The affected mussels were harvested by Island Sea Farms Inc. from the harvest location "Area: BC 13, Sub Area: 15" or "BC 13-15" between 19 Jul 2011 and 2 Aug 2011. The following mussels are affected by this alert:

- Saltspring Island Mussels Aquacultured Edulis Mussels 5 lbs (2.27 kg) - All lots up to and including Lot No. 289; all harvest dates up to and including 2 Aug 2011;
- Albion Fisheries Ltd Mussel N/Shell Saltspring Isl 5lbs – All harvest dates up to and including 4 Aug 2011;

- Pacific Rim Shellfish Corp Mussels or Gallo Mussels – Various weights. All harvest dates up to and including 31 Jul 2011;
- Albion/SSI Mussels - Various weights - Ship dates of 20 Jul 2011 to 4 Aug 2011 inclusive;
- B & C Food Mussels - Various weights - Processing dates of 20 Jul 2011 to 4 Aug 2011 inclusive.

Retailers and restaurants are advised to check the tags or labels on mussel packages or with their supplier to determine whether they have the affected product. Consumers, who have purchased raw mussels from retailers between 19 Jul 2011 and 6 Aug 2011 inclusive should check with their retailer to determine whether they have the affected product. This product has been distributed in British Columbia, Alberta, Saskatchewan, Manitoba and Ontario. However, it may have been distributed in other provinces and territories. There have been reported illnesses associated with the consumption of these mussels. The CFIA is collaborating with its partners, Vancouver Coastal Health (VCH), Vancouver Island Health Authority (VIHA), British Columbia Centre for Disease Control (BCCDC), and Health Canada to investigate these illnesses. This investigation is ongoing. Food contaminated with diarrheal shellfish poisoning (DSP) biotoxin may not look or smell spoiled. Consumption of food contaminated with this biotoxin may cause diarrheal shellfish poisoning, a foodborne illness. Diarrheal shellfish poisoning can cause diarrhea, nausea, vomiting, abdominal cramps and chills. The Canadian harvester and distributors are voluntarily recalling the affected product from the marketplace. The CFIA is monitoring the effectiveness of the recall. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey
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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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